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EXAMINER

FUREMAN, JARED

ART UNIT PAPER NUMBER

2876

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/681,065

Applicant(s)

ROBINSON, MARTIN C.

Examiner

Jared J. Fureman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-155 is/are pending in the application.
- 4a) Of the above claim(s) 56-62 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22, 25-55, 63-69, 72, 75 and 78-155 is/are rejected.
- 7) ☒ Claim(s) 23, 24, 70, 71, 73, 74, 76 and 77 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Receipt is acknowledged of the amendment filed on 9/9/2002, which has been entered in the file. Claims 1-155 are pending, claims 56-62 being withdrawn from consideration.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 7, 8, 11, 13, 16-19, 22, 26, 27, 30, 33-35, 42, 53-55, 63, 67, 69, 72, 75, 86, 89-92, 95-99, 101, 109-112, 145-148, and 153 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham (WO 99/04259 A1) in view of McGregor (Protect Your Crop Even When You Think It's Safe, cited by applicant).

Graham teaches a property identification system and a method for identifying a characteristic (the quality and/or batch) of a bulk flowable material (animal feeds or plant seeds) in a manner that will travel with the bulk flowable material and that will reduce the need for subsequent testing of the bulk flowable material for presence of the characteristic comprising the steps of: selecting a bulk flowable material having a determined property, dispensing a property identification marker (a tracer) into the bulk flowable material, the bulk flowable material being an agricultural product (seeds), wherein the agricultural product comprises an unharvested agricultural product (the seeds are unharvested in that they have not been planted), wherein the property

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identification marker contains information indicating a historical record/specific trait of the bulk flowable material (the batch indicates the processing, and thus the history and traits, of the bulk flowable material), wherein the property identification marker comprises an optically readable marker (a code, for example, numbers and letters), wherein the optically readable marker comprises a machine readable marker (numbers and letters can be read by a machine), wherein the optically readable marker comprises coded information, wherein the optically readable marker comprises human readable information (numbers and letters can be read by a human), wherein the property identification marker comprises an edible/consumable marker (the tracer is edible/consumable in that paper is edible/consumable), a marker preparation step wherein identifying information is stored on the property identification marker (for example: printing the numbers and letters on the tracer), the marker preparation step being performed prior to dispensing the property identification marker, wherein the property identification marker comprises a color-coded marker (the tracer is distinguishable by coloring), wherein the property identification marker comprises a shape-coded marker (the tracer is shape-coded in that the shapes of the numbers and letters provide the code on the tracer), wherein the property identification marker comprises a preprinted label (the tracer is a preprinted label), the dispensing being performed at pre-determined volume/mass/weight-related intervals (rates of .1 to 1000 grams of tracer to 1000 kilograms of feed), sensing a volume/mass/weight of the bulk flowable material, wherein the property identification marker comprises a plurality of biodegradable paper labels, a marker reading step, a plurality of property identification

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markers, a marker dispenser (while not shown, some type of marker dispenser is necessarily present), the plurality of property identification markers carry information identifying a physical characteristic (the quality/batch) of the bulk flowable material in which the property identification marker is placed, the reading step being performed automatically, an automatic property identification marker reading apparatus (not shown), means (the tracer) for indicating a location-independent property (the quality/batch) of the bulk flowable material, means (not shown) for dispensing the means for indicating, means (not shown) for reading the means for indicating, determining whether at least a portion of a chosen lot of a bulk flowable material possesses a given characteristic (whether the bulk flowable material is part of a specific batch), dispensing a property identification marker into the bulk flowable material, wherein the presence of the property identification marker in the bulk flowable material reduces the need for further testing of the chosen lot of bulk flowable material to determine whether the given characteristic is present in the chosen lot (the tracer identifies which batch the bulk flowable material was from without the need to test the bulk flowable material) (see figure 1, pages 1 and 2).

While Graham teaches mixing the property identification marker with the bulk flowable material, the property identification marker consisting of a plurality of ink doses (in that the tracer has a plurality of printing thereon), Graham fails to specifically teach causing the bulk flowable material to flow, the property dispensing markers being periodically dispensed, the agricultural product being a harvested agricultural crop, the harvested agricultural crop is located in a storage container, wherein the property

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identification marker contains information identifying a grower/owner of the bulk flowable material, wherein the property identification marker consists of a plurality of biodegradable ink doses, selecting a field containing a quantity of an unharvested bulk flowable material, harvesting the unharvested bulk flowable material from the selected field, wherein the property identification marker is dispensed into the flowing bulk flowable material without regard to the specific harvest point within the boundaries of the selected field from which the bulk flowable material has been harvested.

McGregor teaches a method for identifying a characteristic of a bulk flowable material (grain) comprising the steps of: causing the bulk flowable material to flow (for example: filling a bin), and periodically dispensing a property identification marker (Crop Confetti) into the bulk flowable material (the Crop Confetti is sprinkled in the grain as the bin is being filled), the bulk flowable material being a harvested agricultural crop (grain), wherein the property identification marker contains information identifying an owner of the bulk flowable material, wherein the property identification marker contains information identifying a grower/owner of the bulk flowable material (the numbers and/or letters are registered in the name of the purchaser), the harvested agricultural crop is located in a storage container (a bin), wherein the property identification marker consists of a plurality of biodegradable ink doses (the Crop Confetti is printed with canola based ink), selecting a field containing a quantity of an unharvested bulk flowable material, harvesting the unharvested bulk flowable material from the selected field (the selecting and harvesting steps are necessary before the step of filling the bin), wherein the property identification marker is dispensed into the flowing bulk flowable

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material without regard to the specific harvest point within the boundaries of the selected field from which the bulk flowable material has been harvested, (see paragraphs 4 and 5).

In view of McGregor's teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to include, with the system and method as taught by Graham, causing the bulk flowable material to flow, the property dispensing markers being periodically dispensed, the agricultural product being a harvested agricultural crop, the harvested agricultural crop is located in a storage container, wherein the property identification marker contains information identifying a grower/owner of the bulk flowable material, wherein the property identification marker consists of a plurality of biodegradable ink doses, selecting a field containing a quantity of an unharvested bulk flowable material, harvesting the unharvested bulk flowable material from the selected field, wherein the property identification marker is dispensed into the flowing bulk flowable material without regard to the specific harvest point within the boundaries of the selected field from which the bulk flowable material has been harvested, in order to help provide a more even distribution of the property identification markers.

4. Claims 5, 6, 9, 20, 21, 28, 29, 44, 45, 51, 52, 93, 94, and 149 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham as modified by McGregor further in view of Rawlins (US 5,845,229, cited by applicants).

The teachings of Graham as modified by McGregor have been discussed above.

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Graham as modified by McGregor fails to specifically teach wherein the harvested agricultural crop is located in a transport container, wherein the harvested agricultural crop is located in a crop harvesting apparatus, wherein the property identification marker contains information indicating geographic origin of the bulk flowable material, wherein the property identification marker comprises a plurality of radiant energy markers, wherein the radiant energy marker comprises a plurality of radio frequency identification tags, wherein the radiant energy marker contains identifying information stored prior to the step of causing the bulk flowable material to flow, wherein the step of periodically dispensing is performed at pre-determined time intervals, the marker dispenser being located in a bulk flowable material collection device, the bulk flowable material collection device comprising a crop harvester, the step of recording positioning information associated with the bulk flowable material, the recording step including the step of receiving a positioning system signal related to the bulk flowable material,

Rawlins teaches a method for identifying a characteristic of a bulk flowable material comprising the steps of: selecting a bulk flowable material (crop 41) having a determined property, causing the bulk flowable material to flow, dispensing a property identification marker (54) into the bulk flowable material, wherein the bulk flowable material comprises an agricultural product, wherein the agricultural product comprises a harvested agricultural crop, wherein the harvested agricultural crop is located in a transport container (44), wherein the harvested agricultural crop is located in a crop harvesting apparatus (40), wherein the property identification marker contains



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information indicating a geographic origin (field location) of the bulk flowable material, wherein the property identification marker comprises a plurality of radiant energy markers, a plurality of radio frequency identification tags (electronic tag 66, see column 4 line 60 - column 5 line 12), a marker preparation step wherein identifying information (a code number) is stored on the property identification marker prior to the step of causing the bulk flowable material to flow, the dispensing being performed at pre-determined time intervals (the times at which the apparatus reaches the field locations), a marker reading step, wherein the periodically dispensing step is performed by a marker dispenser (46) located in a bulk flowable material collection device, a crop harvester (26), the step of recording positioning information associated with the bulk flowable material, wherein the recording step includes the step of receiving a positioning system signal related to the bulk flowable material (see column 6 lines 34-42), wherein the reading step is performed automatically (see figures 1-5, column 4 line 1 - column 7 line 28).

In view of Rawlins teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to include, with the system and method as taught by Graham as modified by McGregor, wherein the harvested agricultural crop is located in a transport container, wherein the harvested agricultural crop is located in a crop harvesting apparatus, wherein the property identification marker contains information indicating geographic origin of the bulk flowable material, wherein the property identification marker comprises a plurality of radiant energy markers, wherein the radiant energy marker comprises a plurality of radio frequency identification tags,

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wherein the radiant energy marker contains identifying information stored prior to the step of causing the bulk flowable material to flow, wherein the step of periodically dispensing is performed at pre-determined time intervals, the marker dispenser being located in a bulk flowable material collection device, the bulk flowable material collection device comprising a crop harvester, the step of recording positioning information associated with the bulk flowable material, the recording step including the step of receiving a positioning system signal related to the bulk flowable material, in order to provide the property identification markers as soon as the bulk flowable material is harvested, to record the origin of the bulk flowable material, and to provide a property identification marker which can be read at a greater distance.

5. Claims 10, 12, 14, 15, 64, 85, 114-118, 121, 123-130, 150, and 155 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham as modified by McGregor further in view of Shortridge et al (US 2001/0011437 A1).

The teachings of Graham as modified by McGregor have been discussed above.

Graham as modified by McGregor fails to specifically teach the property identification marker containing information indicating a genetic property of the bulk flowable material that cannot be visually perceived by an unaided human eye, the property identification marker containing information indicating a crop variety designation related to the agricultural product, the property identification markers identifying a bulk flowable material as containing an organism that has not been genetically modified, the step of harvesting an unharvested bulk flowable material, selecting a field containing a field containing a quantity of an unharvested bulk flowable

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material, at least a portion of the unharvested bulk flowable material being a genetically modified organism having a genetic characteristic that cannot be visually perceived by an unaided human eye, harvesting the unharvested bulk flowable material from the selected field.

Shortridge et al teaches a system and method for creating and preserving the identity of non-genetically modified seeds and grains, including: the use of a property identification marker (a label) indicating a genetic property/content (may contain GMO products, or free of GMO products) of a bulk flowable material (seeds and grains, for example) that cannot be visually perceived by an unaided human eye, the property identification marker containing information indicating a crop variety designation related to the agricultural product (the presence or non-presence of GMO products represents a crop variety), the property identification markers identifying a bulk flowable material as containing an organism that has not been genetically modified (free of GMO products), routing genetically modified bulk flowable material to a storage location (a bin) collecting genetically modified bulk flowable material so as to segregate genetically modified bulk flowable material from bulk flowable material that has not been genetically modified, the step of harvesting an unharvested bulk flowable material, selecting a field containing a field containing a quantity of an unharvested bulk flowable material having a genetic characteristic that cannot be visually perceived by an unaided human eye, at least a portion of the unharvested bulk flowable material being a genetically modified organism (seeds or grains which may contain GMO products), harvesting the unharvested bulk flowable material from the selected field, the presence of the property identification

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markers indicating, without the need for further testing of the harvested bulk flowable material, the presence of a genetically modified organism (once the material has been tested and labeled as may contain GMO products, no further testing is required) (see paragraphs 1, 17, 23, 29, and 31).

In view of Shortridge et al's teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to include, with the system and method as taught by Graham as modified by McGregor, the property identification marker containing information indicating a genetic property of the bulk flowable material that cannot be visually perceived by an unaided human eye, the property identification marker containing information indicating a crop variety designation related to the agricultural product, the property identification markers identifying a bulk flowable material as containing an organism that has not been genetically modified, the step of harvesting an unharvested bulk flowable material, selecting a field containing a field containing a quantity of an unharvested bulk flowable material, at least a portion of the unharvested bulk flowable material being a genetically modified organism having a genetic characteristic that cannot be visually perceived by an unaided human eye, harvesting the unharvested bulk flowable material from the selected field, in order to provide a clear indication of whether or not the material contains genetically modified organisms and to provide a means/method to confirm the purity of non genetically modified materials.

6. Claim 119, 120, and 122 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham as modified by McGregor and Shortridge et al further in view of Rawlins.

The teachings of Graham as modified by McGregor and Shortridge et al have been discussed above.

Graham as modified by McGregor and Shortridge et al fails to specifically teach the readily identifiable property identification markers being radio frequency identification markers, the dispensing step being performed at generally the same time as the harvesting step, the dispensing step being performed at the location of the field selected in the selecting step.

The teachings of Rawlins have been discussed above.

In view of Rawlins teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to include, with the system and method as taught by Graham as modified by McGregor and Shortridge et al, the readily identifiable property identification markers being radio frequency identification markers, the dispensing step being performed at generally the same time as the harvesting step, the dispensing step being performed at the location of the field selected in the selecting step, in order to provide a readily identifiable property identification marker which can be read at a greater distance.

7. Claims 25, 46-48, 65, 66, 103-105, 135-140, 142, 143, 151, 152, and 154 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham as modified by McGregor further in view of Kouchi et al (US 5,541,394, previously cited).

The teachings of Graham as modified by McGregor have been discussed above.

Graham as modified by McGregor fails to teach the property identification marker comprising information indicating: a plurality of properties/additional characteristics of the bulk flowable material, a prior chemical/insecticide/herbicide/soil amendment/fertilizer treatment of the bulk flowable material, the property identification markers indicating that a given environmental treatment has been performed on an area from which the bulk flowable material has been collected, the performance of the environmental treatment being not capable of visual detection by viewing the harvested bulk flowable material with an unaided human eye, the presence of the plurality of readily-identifiable property identification markers in the harvested bulk flowable material to determine whether the harvested bulk flowable material has undergone an environmental treatment, the additional characteristic of the harvested bulk flowable material comprising origin information related to the harvest of the bulk flowable material.

Kouchi et al teaches a system and method including: a property identification marker (a two dimensional barcode) comprising information indicating: a historical record of a bulk flowable material (wheat), a plurality of properties/additional characteristics of the bulk flowable material, a prior chemical/insecticide/herbicide treatment of the bulk flowable material (for example: a country of origin/name of production area; a crop year, use/non-use of pesticides/insecticides), the property identification markers indicating that a given environmental treatment (chemical/insecticide/herbicide treatment) has been performed on an area from which

the bulk flowable material has been collected, the performance of the environmental treatment being not capable of visual detection by viewing the harvested bulk flowable material with an unaided human eye, the presence of the readily-identifiable property identification marker determines whether the harvested bulk flowable material has undergone an environmental treatment (see figure 10, column 18 lines 23-33, and column 19 lines 8-15).

In view of Kouchi et al's teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to include with the system and method, as taught by Graham as modified by McGregor, the property identification marker comprising information indicating: a plurality of properties/additional characteristics of the bulk flowable material, a prior chemical/insecticide/herbicide/soil amendment/fertilizer treatment of the bulk flowable material, the property identification markers indicating that a given environmental treatment has been performed on an area from which the bulk flowable material has been collected, the performance of the environmental treatment being not capable of visual detection by viewing the harvested bulk flowable material with an unaided human eye, the presence of the plurality of readily-identifiable property identification markers in the harvested bulk flowable material to determine whether the harvested bulk flowable material has undergone an environmental treatment, the additional characteristic of the harvested bulk flowable material comprising origin information related to the harvest of the bulk

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flowable material, in order to provide a means/method of verifying the properties of the material (see Kouchi et al, column 19, lines 8-15).

8. Claim 141 is rejected under 35 U.S.C. 103(a) as being unpatentable over Graham as modified by McGregor and Kouchi et al further in view of Shortridge et al.

The teachings of Graham as modified by McGregor and Kouchi et al have been discussed above.

Graham as modified by McGregor and Kouchi et al fails to specifically teach the property identification markers also indicating a genetic characteristic of the harvested bulk flowable material.

The teachings of Shortridge et al have been discussed above.

In view of Shortridge et al's teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to include, with the system and method as taught by McGregor and Kouchi et al, the property identification markers also indicating a genetic characteristic of the harvested bulk flowable material, in order to provide a clear indication of whether or not the material contains genetically modified organisms and to provide a means/method to confirm the purity of non genetically modified materials.

9. Claims 131-134 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham as modified by McGregor and Shortridge et al further in view of Kouchi et al.



The teachings of Graham as modified by McGregor and Shortridge et al have been discussed above.

Graham as modified by McGregor and Shortridge et al fails to specifically teach the property identification markers also indicating an environmental treatment that has been performed on an area from which the harvested bulk flowable material was harvested, the indicated environmental treatment comprising an application of a pesticide/herbicide/fertilizer.

The teachings of Kouchi et al have been discussed above.

In view of Kouchi et al's teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to include, with the system and method as taught by Graham as modified by McGregor and Shortridge et al, the property identification markers also indicating an environmental treatment that has been performed on an area from which the harvested bulk flowable material was harvested, the indicated environmental treatment comprising an application of a pesticide/herbicide/fertilizer, in order to provide a means/method of verifying the properties of the material (see Kouchi et al, column 19, lines 8-15).

10. Claims 31 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham as modified by McGregor as applied to claim 1 above, and further in view of Bilnoski, Jr. (US 5,849,140, previously cited).

Graham as modified by McGregor fails to teach wherein the property identification marker comprises a substance deposited onto the bulk flowable material.

Bilnoski, Jr. teaches a property identification marker, wherein the property identification marker comprises a substance deposited onto/attached to a portion of the bulk flowable material (a color-coded ink spray, see column 1 lines 28-30).

In view of Bilnoski, Jr.'s teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to include, with the system and method as taught by Graham as modified by McGregor, wherein the property identification marker comprises a substance deposited onto/attached to a portion of the bulk flowable material, in order to provide a simple means/method of marking the material.

11. Claims 32 and 102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham as modified by McGregor and Bilnoski, Jr. further in view of Calandro et al (US 4,755,390).

The teachings of Graham as modified by McGregor and Bilnoski, Jr. have been discussed above.

Graham as modified by McGregor as modified by Bilnoski, Jr.'s fails to specifically teach the substance being a colored vegetable-based dye.

Calandro et al teaches the use of colored vegetable-based dyes with a bulk flowable material (cereal) (see column 9 lines 44-47).

In view of Calandro et al's teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to include, with the system and method as taught by Graham as modified by McGregor as modified by Bilnoski, Jr., the substance being a colored vegetable-based dye, in order to provide a safe and environmentally friendly dye.

12. Claims 36 and 100 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham as modified by McGregor as applied to claims 35 and 63 above, and further in view of Bondurant (US 5,338,344).

Graham as modified by McGregor fails to specifically teach the ink being a soy-based ink.

Bondurant teaches the use of soy-based inks (see column 1 lines 58-65).

In view of Bondurant's teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to include, with the system and method as taught by Graham as modified by McGregor, the ink being a soy-based ink, in order to utilize a common, safe, and environmentally friendly ink.

13. Claims 37-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham as modified by McGregor as applied to claim 1 above, and further in view of Puhl (US 5,620,491).

Graham as modified by McGregor fails to specifically teach the step of removing the property identification markers from the bulk flowable material, the removing step comprising a filtering step, an air flow generating step, a gravity separation step, or a magnetic separation step.

Puhl teaches removing contaminants/foreign objects from a bulk flowable material (glass cullet), the removing step comprising a filtering step (screening), an air flow generating step (blowing with air jets), a gravity separation step (in that screening uses gravity), or a magnetic separation step (magnetic filtering) (see column 4 lines 1-6, and column 4 line 61 - column 5 line 7).

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In view of Puhl's teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to include, with the system and method as taught by Graham as modified by McGregor, the step of removing the property identification markers from the bulk flowable material, the removing step comprising a filtering step, an air flow generating step, a gravity separation step, or a magnetic separation step, in order to remove the identification marker, thereby providing a more pure bulk flowable material for further processing.

14. Claims 43, 49, 50, 78-81, 83, 84, 106-108, and 113 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham as modified by McGregor further in view of Iseki Agric. Mach. Mfg. Co. LTD (JP 10-180194, previously cited).

The teachings of Graham as modified by McGregor have been discussed above.

Graham as modified by McGregor fails to specifically teach routing the bulk flowable material based on a determined property of the bulk flowable material, automatically routing the bulk flowable material in response to data gathered via the automatic reading step, automatically directing bulk flowable material sharing a given determined property to a designated storage location, wherein the property identification marker contains information indicating future handling regarding the bulk flowable material, information indicating prior testing of the bulk flowable material, an automatic bulk flowable material conveying/routing apparatus for routing the bulk flowable material to a desired location.

Iseki Agric. Mach. Mfg. Co. LTD teaches routing a bulk flowable material (grain) based on a determined property (quality) of the bulk flowable material, automatically

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routing the bulk flowable material in response to data gathered via an automatic reading step (automatically reading the tag associated with the grain), automatically directing bulk flowable material sharing a given determined property to a designated storage location (tanks 18), wherein the tag contains information indicating future handling regarding the bulk flowable material (the quality information determines where the grain is stored), information indicating prior testing (the quality testing) of the bulk flowable material, an automatic bulk flowable material conveying/routing apparatus for routing the bulk flowable material to a desired location (one of the tanks 18) (see figures 1, 5, and the attached translation of the abstract).

In view of Iseki Agric. Mach. Mfg. Co. LTD teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to include, with the system and method as taught by Graham as modified by McGregor, routing the bulk flowable material based on a determined property of the bulk flowable material, automatically routing the bulk flowable material in response to data gathered via the automatic reading step, automatically directing bulk flowable material sharing a given determined property to a designated storage location, wherein the property identification marker contains information indicating future handling regarding the bulk flowable material, information indicating prior testing of the bulk flowable material, an automatic bulk flowable material conveying/routing apparatus for routing the bulk flowable material to a desired location, in order to avoid mixing grains of different qualities.

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15. Claim 82 is are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham as modified by McGregor and Iseki Agric. Mach. Mfg. Co. LTD further in view of Shortridge et al.

The teachings of Graham as modified by McGregor and Iseki Agric. Mach. Mfg. Co. LTD have been discussed above.

Graham as modified by McGregor and Iseki Agric. Mach. Mfg. Co. LTD fails to specifically teach routing genetically modified bulk flowable material to a storage location collecting genetically modified bulk flowable material so as to segregate the genetically modified bulk flowable material from bulk flowable material that has not been genetically modified.

The teachings of Shortridge et al have been discussed above. Shortridge et al also teaches routing genetically modified bulk flowable material to a storage location (a bin) collecting genetically modified bulk flowable material so as to segregate genetically modified bulk flowable material from bulk flowable material that has not been genetically modified (since non GMO products are isolated from GMO products, naturally GMO products are segregated and stored seperatally) (see paragraphs 1, 17, 23, and 29).

In view of Shortridge et al's teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to include, with the system and method as taught by Graham as modified by McGregor and Iseki Agric. Mach. Mfg. Co. LTD, routing genetically modified bulk flowable material to a storage location collecting genetically modified bulk flowable material so as to segregate the genetically modified bulk flowable material from bulk flowable material that has not been genetically

modified, in order to prevent the non genetically modified material from becoming contaminated with genetically modified material.

16. Claims 87 and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham as modified by McGregor further in view of Gombrich et al (US 4,818,850).

The teachings of Graham as modified by McGregor have been discussed above.

Graham as modified by McGregor fails to teach a preprinted continuous label spool which is subdivided to create the plurality of property identification markers, the preprinted continuous spool comprising a continuous barcode printed thereon.

Gombrich et al teaches a system and method including: a preprinted continuous label spool (roll 10) which is subdivided (cut or torn, for example) to create the plurality of property identification markers, the preprinted continuous spool comprising a continuous barcode (19) printed thereon (see figure 1, column 1 lines 55-58, column 2 lines 18-21, column 4 lines 57-67, column 6 lines 57-63).

In view of Gombrich et al's teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to include, with the system and method as taught by Graham as modified by McGregor, a preprinted continuous label spool which is subdivided to create the plurality of property identification markers, the preprinted continuous spool comprising a continuous barcode printed thereon, in order to provide an efficient bar code dispenser and to eliminate the need for the system to include a printer for printing barcodes.

17. Claim 144 is rejected under 35 U.S.C. 103(a) as being unpatentable over Graham as modified by McGregor and Kouchi et al as applied to claim 135 above, and further in view of Rawlins.

Graham as modified by McGregor and Kouchi et al fails to specifically teach the plurality of readily-identifiable property identification markers being radio frequency identification markers.

The teachings of Rawlins have been discussed above.

In view of Rawlins teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to include, with the system and method as taught by Graham as modified by McGregor and Kouchi et al, the plurality of readily-identifiable property identification markers being radio frequency identification markers, in order to provide a property identification marker which can be read at a greater distance.

***Allowable Subject Matter***

18. Claims 23, 24, 70, 71, 73, 74, 76, and 77 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

19. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record, taken alone or in combination, fails to teach or fairly suggest: the marker preparation step being performed concurrent with the step of causing the bulk flowable material to flow; the marker preparation step being performed after the step of periodically dispensing the marker into a flowing bulk flowable material; using data obtained by reading a dispensed property identification marker to calculate



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statistical information related to the bulk flowable material; using data obtained by reading a dispensed property identification marker to calculate the bulk flowable material's volume; using data obtained by reading a dispensed property identification marker to calculate the bulk flowable material's mass; using data obtained by reading a dispensed property identification marker to calculate the bulk flowable material's weight, in combination with the other claimed limitations as set forth in the claims.

While the prior art of record, for example Graham and Sandvik et al, teach dispensing or applying a marker/label to achieve a given marker/label to volume/mass/weight ratio, the prior art of record does not use information obtained by reading the marker/labels to calculate statistics, volume, mass, or weight.

### ***Response to Arguments***

20. Applicant's arguments with respect to claims 1-22, 25-55, 63-69, 72, 75, and 78-155 have been considered but are moot in view of the new ground(s) of rejection.

As discussed above, Graham as modified by McGregor teaches periodically dispensing property identification markers into a flowing bulk flowable material.

21. In response to applicant's argument that Kouchi et al is nonanalogous art (see page 17 of the amendment filed on 9/9/2001), it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the Kouchi et al reference is reasonable pertinent to a particular problem with which the applicant was concerned,

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namely, identifying whether or not pesticides, herbicides, insecticides, etc. were used during the production of an agricultural crop.

22. In response to applicant's argument that there is no suggestion to combine the references (the Kouchi et al reference, see page 17 of the amendment filed on 9/9/2002), the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the reason for combining the Kouchi et al reference, to provide a means/method of verifying the properties of an agricultural crop, comes directly from the teachings of Kouchi et al (see Kouchi et al, column 19, lines 8-15).

23. In response to applicant's arguments against the references individually (Iseki does not disclose a property identification marker, see page 20 of the amendment filed on 9/9/2002), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

### **Conclusion**

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Eisenberg (US 4,654,165), Graham (US 6,200,610 B1), and

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Taylor US 6,406,725 B1) all teach property identification markers for being mixed with a bulk flowable material.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jared J. Fureman whose telephone number is (703) 305-0424. The examiner can normally be reached on 7:00 am - 4:30 PM M-T, and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (703) 305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

*Jared J. Fureman*  
Jared J. Fureman  
December 15, 2002